

COURSE OUTLINE
of the class 2025 - 2027

Transilvania University of Braşov

Master's degree study programme	ENGINEERING AND MANAGEMENT IN AVIATION (in English)
Fundamental field	Engineering sciences
Master's degree study field	Engineering and management
Faculty	Technological engineering and industrial management
Duration of studies	2 years
Form of education:	Full-time (IF)
Type of master's study programme:	Research

Transilvania University of Braşov

Ministry of Education

Faculty: Technological engineering and industrial management

Valid in the academic year: 2025-2026

Master's degree study programme: Engineering and management in aviation (in English)

Fundamental field: Engineering sciences

Master's degree field: Engineering and management in aviation

Duration of studies: 4 semesters

Form of education: full-time

Type of master's degree programme: research

YEAR I

No.	Compulsory disciplines	Type*	Semester I						Semester II					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
1.	Digital marketing in aviation	PC	1		1	1	E	4						
2.	Academic Integrity and Ethics	PC	1	1			V	2						
3.	Composite materials technology for aeronautics	PC	2		1	1	E	5						
4.	Risk management	SC	2		1	1	E	5						
5.	Sustainable Design in Aviation	SC	2		1		E	4						
7.	Practical activities for Research and Design 1	SC **				12	V	10						
Total hours compulsory disciplines			8	1	4	15	4E+2V	30						
			28											

No.	Compulsory disciplines	Type*	Semester I						Semester II					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
1.	Unmanned Aerial Systems	AC							2		1	1	E	5
2.	Economics and management in aviation	PC							2	1			E	4
3.	Practical activities for research and design 2	SC**									12	V	10	
Total hours compulsory disciplines									4	1	1	13	2E+1V	
										19				19

No.	Optional disciplines	Type	Semester I						Semester II					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
<i>Choose one discipline from each package:</i>														
Optional package 1														
4.	Quality Assurance in Aviation	AC							2		2		E	4
	Quality Control in Aviation	AC												
Optional package 2														
5.	Innovative technologies in aerospace engineering	SC							2		1		E	4
	Process Engineering	SC												
Optional package 3														

6.	Soft Skills (Skills in communication and social competence)							1		1		E	3
	Organizational communication											3E	
Total hours optional disciplines per week								5		4			11
								9					
Total								28					30

No.	Facultative disciplines	Type	Semester I						Semester II						
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.	
1.	Aircraft Manufacture and Maintenance	AC	2		2			E	4						
2.	Aircraft and rotorcraft flight control	AC								2		2		E	4
			2		2			1E		2		2		1E	
Total facultative hours per week															
			4					4		4				4	

Prof Eng. Ion Vasile ABRUDAN, PhD

Rector

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Dean

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Director of department

Associate Prof. Cristina GĂVRUȘ, PhD

Coordinator of study programme

YEAR II

No.	Compulsory disciplines	Type*	Semester III						Semester IV						
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.	
1.	Management of Technology and Innovation	PC	2			1	E	4							
2.	Air traffic management	AC	2		1	1	E	5							
3.	Safety Management Systems in Aviation	PC	2		1		E	3							
4.	Practical activities for research and design 3	SC**				12	V	10							
Total hours compulsory disciplines			6		2	14	3E+1V	22							
			22												

No.	Optional disciplines	Type	Semester III						Semester IV						
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.	
Choose one discipline from each package:															
Optional package 1															
5.	Aviation Logistics	AC	2		2		E	5							
	Airport Management and Ground Services	AC													
Optional package 2															
5.	Human Resource Management in Aviation	PC	1	1			E	3							
	Human Factors in Aviation	PC													
Total hours optional disciplines per week			3	1	2		2E	8							
			6												
Total			28					30							

No.	Compulsory disciplines	Type*	Semester III						Semester IV						
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.	
1.	Engineering and management of aviation systems	PC							2	1			E	4	
2.	Practical activity and scientific research for dissertation	SC**										8	V	10	
3.	Practical activities for research and design 4	SC**										12	V	10	

Total hours compulsory disciplines								2	1		20	1E+2V	24
								23					

No.	Optional disciplines	Type	Semester III					Semester IV						
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
Choose one discipline from each package:														
Optional package 1														
5.	Maintenance of aviation systems	AC							1		1		V	3
	Airline management	AC												
Optional package 2														
5.	Project management	PC							1		2		V	3
	Informatics for managers	PC												
Total hours optional disciplines per week								2			3		6	
Total											5		2V	
											28		30	

No.	Facultative disciplines	Type	Semester I					Semester II						
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
1.	Entrepreneurship and Managerial Innovation	PC	1		1		E	3						
2.	Strategic management in Aviation	PC							2			2	E	4
Total facultative hours per week			1		1				2			2		
			2		1E		3	4		1E		4		

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GENERAL BALANCE SHEET I

No.	Discipline	No. of hours		Total		No. of credits	
		Year I	Year II	hours	%	Year I	Year II
1	Compulsory	322	182	504	64,3	49	46
2	Optional	126	154	280	35,7	11	14
TOTAL		784				784	60
3	Facultative	8	7			8	7

GENERAL BALANCE SHEET II

No	Discipline	No. of hours		Total		No. of credits	
		Year I	Year II	hours	%	Year I	Year II
1	Fully / partially assisted disciplines	448	336	784	50%	40	30
2	Specialized practice	336	336	672	43%	20	20
3	Practice for drafting the dissertation		112	112	7%		10
TOTAL		784	784	1568		60	60

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